

REMARKS/ARGUMENTS

Claims 16-18, 20, 24, 26, 32, 33, 37-40, 45-47, 49-54, 62, 67, 68, 76, 77, 81, 82, 87 and 88 are pending. By this Amendment, claims 16, 18, 20, 45, 46, 47, 50, 51, 54, 62, 67, 76, 77 and 81 are amended, claims 55-61, 63-66, 69-75, 78-80 and 83-86 are canceled, and claims 87 and 88 are added. Reconsideration in view of the above amendments and the following remarks are respectfully requested.

Applicants acknowledge that the Office Action in paragraph 1 has maintained the Restriction Requirement. Accordingly, independent claims 55 and 83, and most of their dependent claims have been canceled. Several dependent claims (e.g., claims 62, 67, 68, 76, 77, 81 and 82) have been maintained, although their dependencies have been changed such that they depend on various ones of the remaining allowable independent claims.

Claims 18, 20, 26, 45-47, 51 and 54 were rejected under 35 U.S.C. §112, second paragraph. This rejection is respectfully traversed. At the outset, Applicants have made various minor amendments to independent claims 16 and 50 to improve clarity.

With regard to the rejection of claims 18 and 20, claims 18 and 20 have been amended for clarity only to specify that the rock boring device includes a shaft comprising a driven section configured to rotate about a longitudinal axis and a mounting section for mounting said disc cutter to said shaft on a mounting axis. The mounting axis is angularly offset from the rotation axis of the driven section whereby the disc cutter will oscillate. Claim 20 is therefore consistent with claim 18 since it calls for the mounting axis to be angularly offset from rotation axis of the driven section by an angle greater than 0 and less than 10° whereby the disc cutter will nutate.

With regard to the rejection of claims 26, 46 and 54, Applicants respectfully request reconsideration. The Examiner's attention is directed to a comparison of the side view shown in

Figure 4 and the plan view shown in Figure 5, where yoke 68 has been rotated to 90°. Furthermore, ability for the boom (shaft) to rotate about a longitudinal axis is clearly disclosed in the specification at page 11, line 20, which recites "the shaft 67 can rotate about its longitudinal axis (Y)." Accordingly, withdrawal of the rejection of claims 26, 46, and 54 is respectfully requested.

With regard to the rejection of claim 45, claim 45 has been amended so as to depend from claim 16 rather than canceled claim 21.

With regard to claims 46 and 47, claim 46 has been amended for clarity only so as to recite that the disc cutter and the inertial reaction mass are structured to pivot about the wrist axis. In this connection, independent claim 16 has been amended for clarity so as to specify a wrist axis rather than a second boom axis. Claim 47 also makes reference to the wrist axis. Applicants respectfully point out that the yoke may be rotated as shown in Figures 4 and 5. Accordingly, the first boom axis could be either axes Z or X as shown in the drawings. That is, by rotating the yoke around the Y axis as disclosed in the claim, it is possible to rotate the disc cutter around axis W in the same direction as axes X and Z as shown in Figures 4 and 5, respectively.

With regard to the rejection of claim 51, "ground" has been changed to --the rock face-- in order to address the rejection.

Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 16-18, 20, 24, 26, 32, 33, 37-40, 45-47 and 49-54 were rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-27 of U.S. Patent No. 6,561,590. Applicants respectfully disagree with the rejection. However, in order to expedite prosecution, submitted herewith is a duly executed Terminal Disclaimer. The filing of a

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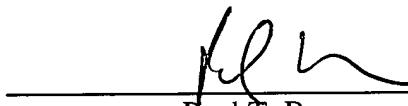
Terminal Disclaimer is not an admission as to the proprietary of the rejection. See MPEP 804.02.

In view of the above amendments and remarks, Applicants respectfully submit that all the claims are patentable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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